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#### ROBERTS PROFESSIONAL CORPORATION & ECKARD.

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March 11, 1993

Ms. Donna R. Searcy, Secretary Federal Communications Commission 1919 M Street, N.W.--Room 222 Washington, D.C. 20554

> MM Docket No. 92-317 Re:

Dear Ms. Searcy:

On March 1, 1993, undersigned counsel to Milford Broadcasting Company filed a Motion to Enlarge the Issues against Sharon A. Mayer. Attached as Exhibit 6 to the Motion is a supporting affidavit from B. Benjamin Evans. A photocopy of the original affidavit was submitted with the filing on March 1.

Enclosed for filing are the original affidavit and  $\operatorname{six}$ additional copies. Please associate this letter with the Motion filed in the above docketed proceeding.

Please contact the undersigned counsel if there are any questions.

Sincerely.

Hon. Edward Luton--w/encl. (By Hand) Paulette Laden, Esq. -- w/encl. (By Hand) Richard Swift, Esq. -- w/encl. (By Hand)

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Consulting Engineers

#### **ENGINEERING STATEMENT**

This Engineering Statement has been prepared by B. Benjamin Evans of Evans Associates, Consulting Communications Engineers in Thiensville, Wisconsin. Mr. Evans has been a consultant in broadcast engineering for 13 years, and has been involved in the planning and construction of numerous radio broadcast facilities across the United States. Mr. Evans is a member of the Association of Federal Communications Consulting Engineers, a professional association of communications engineers practicing before the Federal Communications Commission.

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This affiant has been retained by Milford Broadcasting Company, applicant for an FCC construction permit to build a new Class C2 FM station at Milford, lowa, to evaluate a competing application by Sharon A. Mayer, to determine: 1) the minimum engineering and construction costs to build the FM facility proposed by Mayer; 2) to determine whether or not the proposed antenna-supporting tower, from an engineering feasibility standpoint, can be built on the property identified by Mayer as being available for such construction.

### **ENGINEERING & CONSTRUCTION COSTS**

The following costs have been obtained from a national vendor of broadcast equipment. The amounts shown are considered by this affiant to be the minimum amount that must be spent on new equipment and construction to build a transmitting facility such as that proposed by Mayer, and to equip a studio capable of carrying live programming and with the means for producing pre-recorded programming.

20 KW FM Transmitter & Accessories	\$ 47,315
6-bay Circularly-Polarized High-Power FM Transmitting Antenna	19,612
3" Transmission Line & Accessories	14,702
469' Steel, Guyed Tower (FAA-lighted, 70% guying)	62,000
10' X 20' Transmitter Building	25,000
Audio Processing Equipment	10,590
Air Studio Equipment	20,000
Production Equipment	23,000
TOTAL	\$222,219
TOTAL	φ <b>222,219</b>

It should be noted that the above costs do not include the construction of a studio nor the means to bring the audio to the transmitter site (studio-transmitter link, leased telephone line, etc.). Also not included in the above are installation costs for the air studio and production equipment, and off-air monitoring equipment.

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Even if the vendor should give its best discount (20%), the total cost would still be more than \$177,000.

#### LAND REQUIREMENTS FOR TOWER

The parcel of land on which Mayer proposes to build a 468-foot tower, has dimensions of 495 feet north and south, and 561 feet east and west. A 100-foot square notch on the north side of this rectangular area is taken by a water tower, and is not part of the property. A road right-of-way along the east side of the property takes up a 33-foot-wide strip of land running north and south. Thus, the working dimensions of the property are 495 feet by 528 feet, which is exactly 6 acres.

Since the longer sides of the property run east and west, the maximum land-use efficiency would be obtained with one set of guy wires oriented 90° True, and the other two sets of guy wires oriented at 210° and 330° True. The standard guying ratio (the ratio of the distance between the tower and the outer guy anchors, to the height of the tower) is 70%. The **minimum** amount of land required for erecting a 468-foot tower at 70% guying is 497 feet by 574 feet, or 6.5 acres, which is a larger parcel of land than is available at Mayer's proposed site. In order for the tower and guy wires to fit inside the property boundaries, the tower would need to be guyed at 64%. As the guying ratio increases, the cost of the tower also increases.

Many municipalities require a minimum setback from the property boundaries for new constructions. A typical setback for commercial construction is 50 feet. If the outer guy anchors must be set back at least 50 feet from any boundary, the minimum guying ratio would have to be 52%.

Many communities and state governments also require that the tower itself be set back from a public road at least equal to the height of the tower. If such a requirement exists at the Mayer site, the tower would have to be placed 60 feet or less from the west boundary of the property. This would leave so little room on the west side of the property for the two guy wires and anchors at 210° and 330°, that even with no property line setback, the guying ratio would have to be 25% or less. A tower with such a small guying ratio would be prohibitively expensive. If a 50-foot setback were required, it would not be possible, in the opinion of this affiant, to construct a guyed 468-foot tower under these conditions.

## **AFFIDAVIT**

COUNTY OF OZAUKEE	1	
STATE OF WISCONSIN	} S	SS

## B. BENJAMIN EVANS, being duly sworn upon oath deposes and says:

That his qualifications are a matter of record with the Federal Communications Commission:

That he is a Consulting TeleCommunications Engineer in Wisconsin, and is a partner in the firm of Evans Associates;

That this firm has been retained by Milford Broadcasting Company to prepare this engineering exhibit;

That he has either prepared or directly supervised the preparation of all technical information contained in this engineering statement, and that the facts stated in this engineering statement are true of his knowledge, except as to such statements as are herein stated to be on information and belief and as to such statements he believes them to be true.

Subscribed and sworn to before me this 1st day of March, 1993.

My Commission expires Oct 1996.

Nøtary Public